Remarks

Reconsideration of the present application is respectfully requested in view of the foregoing amendments and following remarks. Claims 1-22 and 24-36 are pending in the application. No claims have been allowed. Claims 1, 32, 35, and 36 are independent. Claim 23 has been canceled. Claims 6, 10, and 32 have been amended to correct minor typographical errors and not for reasons related to patentability. Claims 1-22 and 24-36 have been rejected. These rejections are respectfully traversed.

Objection to the Specification

In the Office Action Summary page, the box regarding an objection to the specification by the Examiner has been checked. Applicants respectfully submit that, since nothing in the Action itself suggests an objection to the specification, the box was checked by mistake. Accordingly, Applicants respectfully request confirmation that there is no outstanding objection to the specification.

Patentability of Claims 1-5 and 7 over Ravichandran under 35 U.S.C. § 102(b)

Claims 1-5 and 7 have been rejected under 35 U.S.C. § 102(b) as being unpatentable over U.S. Patent No. 5,966,537 to Ravichandran ("Ravichandran"). These rejections are respectfully traversed.

Independent claim 1 is directed to a method, and requires: "**receiving the state information** from the first simulation model" and "**making the state information available to the second simulation model** without simulating the transfer in the circuit design" (emphasis added).

As noted in the Office Action, Ravichandran states at col. 7, lines 60-67:

> At step 408, a second simulation is performed using CPU simulator 408 and the same input data except that this time the optimized basic blocks of code are used. This second simulation is used to measure how much the optimizer has improved the code. In one embodiment, the output from the first simulation at step 408 is used to <u>generate a second optimization metric value and corresponding state information for each basic block</u> (emphasis added).

Therefore, Ravichandran is understood to describe a system that uses output data from a first simulation in a second simulation to generate a second optimization metric value and corresponding state information, the first simulation having generated a first optimization value and corresponding state information. These steps are understood to be performed in a manner that includes generation of state information for each simulation but no transfer of such state information between simulations. Rather, Ravichandran is understood to describe a system that determines the difference between the first optimization metric value and the second optimization metric value (see Abstract) but does not receive state information from the first simulation or make the state information available to the second simulation.

As such, Ravichandran fails to teach or suggest receiving the state information from the first simulation model and making the state information available to the second simulation model without simulating the transfer in the circuit design, as recited in independent claim 1. Accordingly, Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of independent claim 1 be withdrawn.

Dependent claims 2-5 and 7 depend directly or indirectly from independent claim 1 and are allowable for at least the reasons recited above with respect to their parent claim 1. Moreover, claims 2-5 and 7 recite combinations of features that are independently patentable. Accordingly, Applicants respectfully request that the 35 U.S.C. § 102(b) rejections of dependent claims 2-5 and 7 be withdrawn.

Patentability of Claims 6, 8-22, and 24-36 over Ravichandran in view of Bailey under 35

U.S.C. § 103(a)

Claims 6, 8-22, 24-36 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,966,537 to Ravichandran ("Ravichandran") in view of Bailey et al., "Hardware/Software Co-Simulation Strategies for the Future" ("Bailey"). These rejections are respectfully traversed.

Claims 6, 8-22, and 24-31

Dependent claims 6, 8-22, and 24-31 depend directly or indirectly from independent claim 1 and are allowable for at least the reasons recited above with respect to their parent claim 1. Moreover, claims 6, 8-22, and 24-31 recite combinations of features that are independently patentable. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of dependent claims 6, 8-22, and 24-31 be withdrawn.

Claims 32-34

Independent claim 32 is directed to a method, and requires: "**reading state information from a first simulation model** in a simulation environment when a simulation domain of the first simulation model is deactivated" and "**writing the state information to a second simulation model** in the simulation environment prior to activation of a simulation domain of the second simulation model" (emphasis added).

As noted in the Office Action, Ravichandran states at col. 14, lines 43-53:

At step 408, a second simulation is performed using CPU simulator 408 and the same input data except that this time the optimized basic blocks of code are used. This second

simulation is used to measure how much the optimizer has improved the code. In one embodiment, the output from the first simulation at step 408 is used to generate a second optimization metric value and corresponding state information for each basic block (emphasis added).

Therefore, Ravichandran is understood as describing a system that uses output data from a first simulation in a second simulation to generate a second optimization metric value and corresponding state information, the first simulation having generated a first optimization value and corresponding state information. These steps are understood to be performed in a manner that includes generation of state information for each simulation but no transfer of such state information between simulations. Rather, Ravichandran is understood to describe a system that determines the difference between the first optimization metric value and the second optimization metric value (see Abstract) but does not read state information from the first simulation or write the state information to the second simulation.

As such, Ravichandran fails to teach or suggest reading state information from a first simulation model and writing the state information to a second simulation model, as recited in independent claim 32. Accordingly, Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of independent claim 32 be withdrawn.

Dependent claims 33 and 34 depend directly or indirectly from independent claim 32 and are allowable for at least the reasons recited above with respect to their parent claim 32. Moreover, claims 33 and 34 recite combinations of features that are independently patentable. Accordingly, Applicants respectfully request that the 35 U.S.C. § 102(b) rejections of dependent claims 33 and 34 be withdrawn.

Claim 35

Independent claim 35 is directed to a machine readable medium having stored thereon

machine executable instructions that when executed implemented a method that requires:

"receiving the state information from the first simulation model" and "**making the state**

information available to the second simulation model without simulating the transfer in the

circuit design" (emphasis added).

Ravichandran fails to teach or suggest receiving the state information from the first

simulation model and making the state information available to the second simulation model

without simulating the transfer in the circuit design, as recited in independent claim 35.

Accordingly, Applicants respectfully request that the 35 U.S.C. § 102(b) rejection of independent

claim 35 be withdrawn.

Claim 36

Independent claim 36 is directed to a machine readable medium having stored thereon

machine executable instructions that when executed implemented a method that requires:

"reading state information from a first simulation model in a simulation environment when a

simulation domain of the first simulation model is deactivated" and "**writing the state**

information to a second simulation model in the simulation environment prior to activation of

a simulation domain of the second simulation model" (emphasis added).

Ravichandran fails to teach or suggest reading state information from a first simulation

model in a simulation environment when a simulation domain of the first simulation model is

deactivated and writing the state information to a second simulation model in the simulation

environment prior to activation of a simulation domain of the second simulation model, as

recited in independent claim 36. Accordingly, Applicants respectfully request that the 35 U.S.C.

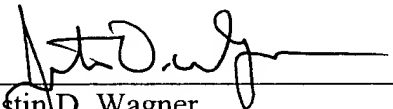§ 102(b) rejection of independent claim 36 be withdrawn.

Conclusion

The claims in their present form should be allowed. Such action is respectfully

requested.

Respectfully submitted,

KLARQUIST SPARKMAN, LLP

One World Trade Center, Suite 1600
121 S.W. Salmon Street
Portland, Oregon 97204   By_____
Telephone: (503) 595-5300   Justin D. Wagner
Facsimile: (503) 595-5301   Registration No. 54,519